

EVALUATING THE EFFECTIVENESS OF THE U.S. NAVY
LEADERSHIP CONTINUUM CURRICULA

A thesis presented to the Faculty of the U.S. Army
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fulfillment of the requirements for the
degree

MASTER OF MILITARY ART AND SCIENCE

by

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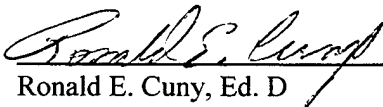
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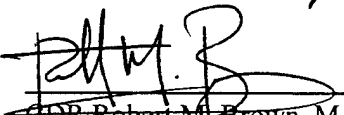
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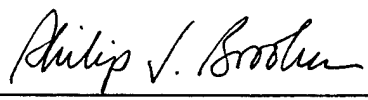
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ABSTRACT

EVALUATING THE EFFECTIVENESS OF THE U.S. NAVY LEADERSHIP CONTINUUM CURRICULA, by LCDR Delores A. Duncan-White, USN, 80 pages

This thesis evaluates the effectiveness of the leadership continuum curricula by assessing the transfer of classroom learning to behavior on the job. The study assessed the Chief Petty Officer (CPO) Leadership course.

A pilot study was conducted to evaluate the effectiveness of the Chief Petty Officers' curriculum. A Leadership Continuum Survey Questionnaire was developed to identify and analyze the student's attitudes concerning the effectiveness of the knowledge and skills taught in the course and how these variables affected the students' behavior on the job. The questionnaire was developed using a six-point Likert scale. The survey assessed the adequacy and usefulness of the competencies covered in the curriculum. The questionnaire allowed for analysis and interpretation of participants attitudes regarding the course.

The survey was distributed to 25 CPOs who completed the training within the past twelve months, 50 percent of the surveys were returned (N=12). The statistical analysis revealed that the participants found that the course effectively trained Chief Petty Officers in leadership skills preparation.

The study recommends a periodic evaluation be conducted to continue the review of the relationships between the CPO leadership training and performance using a sample size of at least 60 participants.

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LIST OF ACRONYMS

ADM	Admiral
CMC	Command Master Chief
CNET	Chief of Naval Education and Training
CNO	Chief of Naval Operations
CPO	Chief Petty Officer
LMT	Leadership Management Training
LMET	Leadership Management Education and Training
NAVLEAD	Naval Leadership
OPNAVINST	Office of Personnel Navy Instruction
SECNAV	Secretary of Navy
TEMUDINS	Temporary Duty Under Instruction
TQL	Total Quality Leadership
ZBT&ER	Zero Based Training and Education Review

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CHAPTER 1

INTRODUCTION

The Importance of the Study

Importance to Chief of Naval Education and Training (CNET)

In response to the dramatic shift in the global strategic landscape that has resulted from the end of the Cold War and the dissolution of the Soviet Union, the Navy redefined and clarified its roles and missions and made fundamental changes in literally every aspect of its strategy, policies, and programs. Training and education was the key to transitioning effectively to the new international security environment and to ensuring that the Navy meets the new challenges of the twenty-first century. To ensure that the training and education programs remain challenging, build competence; and develop confidence; instill loyalty and dedication and inspire excellence by fostering initiative, enthusiasm and an eagerness to learn; the Secretary of the Navy (SECNAV) directed a zero-based review of all Navy shore-based training and education. This was done to ensure that the training infrastructure was appropriately sized and focused to support a smaller Navy of the future and that Navy training and education would effectively employ the doctrine of "...From the Sea."¹

On 12 January 1993, the Under Secretary of the Navy formally chartered the Zero-Based Training and Education Review (ZBT&ER). The ZBT&ER Board concluded that the content, structure, and management of Navy leadership training were still inadequate. The findings revealed that the leadership training is reactive, nonadditive, optional, and nonstandard. Curriculum management was not centralized, resulting in nonstandard,

ineffective training. For example, less than 50 percent attended the forty-hour division officer Naval Leadership (NAVLEAD) course. The attendance of the junior officers, and midgrade officer courses varied widely by community. The study recommended several changes to leadership training including: mandatory training before promotion and advancement and key billet assignments; central funding and management of leadership education and training; and a curriculum that is a progressive and sequential continuum that covers the four major and fundamental topics of organizational values, people skills, managerial skills, and vision for the future.

In 1994, the Chief of Naval Operations (CNO) approved the creation of a series of eight courses designed to teach leadership skills to officers and mid- to senior-level enlisted personnel at key points in their careers. An officer will attend these leadership continuum courses at the basic (division officer and branch officer), intermediate (department head and aviation second sea tour), advanced (executive officer and aviation department head), and command leadership (commanding officer and aviation executive officer) levels.

Enlisted personnel will attend courses upon selection for advancement to E-5, E-6, Chief Petty Officer (E-7), and Command Master Chief (E-9) and Chief of the Boat (E-8). All courses will be on-line by the end of fiscal year 1996. The leadership continuum's two flagship courses--Command Leadership and Command Master Chief and Chief of the Boat--started in 1995. These courses are offered at the Command Leadership School and Senior Enlisted Academy, respectively. The other courses will be taught at various Navy leadership sites worldwide.

Any training program, no matter how well developed, is only as good as the results it attains. The value of a training program can be best shown by its evaluation against some standards. To justify the existence of the Leadership Continuum by showing how it

contributes to the Navy's objectives and goals and to determine the effectiveness of the Leadership Continuum and ways in which it can be improved, the Assistant Secretary of the Navy for Manpower and Reserve Affairs, the Vice Chief of Naval Operations, and the Chief of Naval Operations Executive Board tasked CNET with developing a method to assess the effectiveness of the leadership continuum training and to monitor leadership continuum results.

The Statement of the Problem

The purpose of this study was to evaluate the effectiveness of the leadership continuum curricula by assessing the transfer of classroom learning to behavior on the job. The primary question this thesis attempted to answer was: Are the knowledge and skills taught in the Leadership Continuum curricula effective in changing behavior on the job? To answer this question the following subordinate questions were answered: What are the goals and objectives of the training program? How can they be measured? What do measures show about the degree of goal attainment? How effective is the Leadership Continuum program in influencing behavior change(s)?

Where there is a training program, there is always a need to evaluate training effectiveness. Donald Kirkpatrick identifies three specific reasons to evaluate training: (1) to justify the existence of the training program by showing how it contributes to the organizations objectives and goals, (2) to decide whether to continue or end training programs, and (3) to gain information on how to improve future training programs.²

When there is a need to downsize in the military, the funds for training programs are usually the first to be cut. Senior leaders are challenged to look for programs that can be eliminated with the fewest negative results. Training and training programs were perceived by many seniors leaders as optional. Its worth to the organization depends on the senior leaders'

view of its effectiveness. Training must continually be evaluated to justify the value of the program to the organization.

Some programs are offered on a pilot basis in hopes that they will cause the desired results. These programs are usually monitored closely to determine if they should be continued. The most common reason for evaluation is to determine the effectiveness of a program and ways in which it can be improved. The evaluation focuses on how to improve the program.

An evaluation instrument to assess the effectiveness of the Leadership Continuum is crucial because it serves as a guide for the Chief of Naval Operations (CNO) in the training of Naval officers and key enlisted personnel at critical points in their career. The evaluation instrument must enhance the Navy's ability to train the finest leaders possible while identifying early those problems that may hinder an individual's leadership performance.

Background

Key leadership issues in the 1960s and 1970s were attrition, retention, and discipline. Even Congress concluded in the 1973 Hicks report that the Navy's leadership and management skills of the Navy's middle management were inadequate. As a result, the Navy determined a need existed for a reliable leader development method. Leadership Management Training (LMT) was the first effort, but it was met with limited success. The problem with these courses was that they were teaching ideas that were theory based and difficult to apply to the job. In 1975, a major study conducted by CNET found that more than 157 leadership and management courses were being conducted throughout the Navy. This was besides the LMT effort. These courses lacked consistency and were offered without a Navy mandate. Consequently, in the 1976-77 time, the Navy decided leadership training had to be based upon empirically derived skills that were actually practiced on the job. This led the Navy to adopt a competency-based

training approach. The Navy contracted with the Harvard affiliated firm McBer, Inc. to research Navy leadership and management competencies.

McBer identified and the Navy accepted the premise that the derived competencies were valid and could be taught by the Navy's personnel. In 1978, CNO (Admiral Hayward) approved Leadership Management Education and Training (LMET). His initial emphasis was directed to key sea duty billets (commanding officer, executive officer, department head, division officer, chief petty officer, and leading chief petty officer). Admiral Haywood wanted all incumbents to be trained by fiscal year 1982. Also, he expected LMET to be expanded by fiscal year 1983 to include shore, staff, and flag officers. His ultimate goal was that the Navy would be 100 percent LMET trained. A permanent change of station was viewed as the most effective method for providing the training for three reasons: (1) individuals were trained to the specific billets, (2) greater chance for behavior change, and (3) less personnel impact or cost burdens to the fleet.

LMET evolved over the next ten years; however, the basic idea and approach remained essentially unchanged. The initial momentum to produce and conduct the courses was not maintained. Officer's courses were reduced, driven by the perceived need for increased tactical training within pipeline time constraints. The division officer course was reduced to one week in 1986. The department head course, never implemented outside pipeline training, was reduced to sixteen hours in 1982. After initial reductions, the commanding officer and executive officer course was eliminated in 1985 and was replaced with a voluntary, two-day command excellence seminar. Gradually the intended continuum of officer leader-training eroded.

Additionally, both officer and enlisted course attendances were low. For example, only about 25 percent of the senior enlisted had attended LMET. Policy continued that only those enlisted personnel en route to a fleet job could attend LMET. This policy significantly reduced training opportunities, particularly for Navy women. In 1988, the Temporary Duty Under

Instruction (TEMDUINS) policy was changed which prevented funding for LMET training en route, unless the training was colocated with the losing or gaining command. This policy further reduced training opportunities. Outside the pipeline courses, officer attendance at all courses was low, and many of those attending were not the targeted audience. The course was poorly attended outside (1) the surface, (2) submarine, and (3) supply pipelines; and the aviation community had among the worst attendance records, with less than 15 percent of eligible junior officer attending the course.

For senior officers, the command excellence seminar was a fast-paced, two-day seminar on the elements that differentiate superior from average commands. It was well attended, but not by those for whom it was originally designed for. Only 31 percent of the attendees were commanding officers, executive officers or prospective commanding and or executive officers of the primary targeted audience. Other active duty and reserve officers plus civilian personnel were the principal recipients of the training.

In December 1988, the Chief of Naval Personnel (CNP) directed a complete review of the way the Navy developed leaders. The findings of that naval review revealed that, while high-quality leadership training was provided, it missed most of the Navy populations and that instead of being progressively complex and challenging, it tended to be redundant. The CNP directed the that Commander, Naval Military Personnel Command (PERS-62), revitalize leader development by developing a "cradle-to-grave" (or total career approach to leader development) program for officers and enlisted. It was started with the enlisted community and produced two courses that would become mandatory for completion before advancement to E-7 and E-8.

In 1989, the new leadership initiative began, designated the Navy Leader Development Program (NAVLEAD). The courses were based on basic leadership principles and Navy core values. The core values were interwoven throughout the training, underpinning didactic

portions, and facilitated simulations. The NAVLEAD program was designed to support career-long leader development with the goal to provide Navy personnel the specific skills necessary to lead their subordinates in accomplishing their assigned missions effectively. These courses were designed to be no frills, provide what was needed to do the job, with learning enhanced by job-related simulations.

In July 1989, CNO approved major revisions in the Navy's enlisted leader training programs. New mandatory one-week courses for Leading Petty Officers and Chief Petty Officers came on-line March 1990 with attendance required for the fiscal year 1992 advancement cycle. A Command Master Chief (E-9) course came on-line in May 1991, and the Petty Officer and Chief Petty Officer indoctrination courses were strengthened. Additionally, the Navy-wide command indoctrination policy was issued by Office of Personnel Naval Instruction (OPNAVINST) 5351.1 on 2 March 1990. The enlisted Navy leaders' development program policy was formally published by OPNAVINST 5351.2 on 13 November 1990. Enlisted members received leadership training beginning with the Petty Officer Indoctrination, E-5 or E-6 Leading Petty Officer NAVLEAD, three- to five-day Chief Petty Officer Indoctrination on selection to E-7, followed by Chief Petty officer NAVLEAD. Those selected as Command Master Chief (CMC) received four- to five-day Command Master Chief course.

In 1989, the Secretary of the Navy directed a review of total quality management concepts for applicability to the Department of the Navy. Under the auspices of the Chief of Naval Education and Training, an education and training quality management board were created that met and designed the Navy's total quality management education and training system. With the strong support of the Undersecretary of the Navy; Daniel Howard, continued priority was placed on process improvement and total quality management. Six total quality management (TQM) courses were designed and developed. The implementation strategy for TQM training

was a “train the trainer” approach with master trainers in Little Creek, Virginia, and Coronado, and California. The Coronado site was established in April 1992 and the Little Creek site in July 1992. Admiral Kelso directed the term “total quality management” be modified to “total quality leadership.” With the arrival of the leadership training initiative, the total quality leadership (TQL) training sites at Coronado and Little Creek were converted to Naval Leader Training Units (NLTUs) with both NAVLEAD and TQL courses being taught.

In May of 1990, Chief of Naval Personnel (Admiral Boorda) approved the officers’ leadership continuum and directed that first efforts focus on junior officers. Besides the necessary skills and behaviors (or competencies) needed to be an outstanding Navy leader, he directed that an overarching leadership principles for officers be developed.

Beginning with accession programs, leadership courses were to be provided at key leadership intervals up to first-tour prospective commanding and executive officers. The accession courses were designed to help midshipmen and officer candidates find a working knowledge of basic leadership skills and principles. The division officer (01 and 02) courses focused on applying leadership principles in an operational environment, with particular emphasis on managing key working relationships. The continuum was to address leadership issues at the department head then (03 and 04) level and beyond, interweaving aspects of the traditional leadership principles, command effectiveness research, and total quality leadership. Courses were to be tailored to meet the needs of each officer community, yet sufficiently standardized to ensure that a consistent leadership message was expressed to all ranks and communities.

In August 1991, the CNP and the CNET approved movement of NAVLEAD curriculum development to CNET with policy and curriculum approval authority retained by Bureau of

Naval Personnel (BUPERS). Billets and supporting resources were transferred to CNET for TQL and NAVLEAD program management in one division.

The Significance of the Study

This thesis was significant, in that, before the implementation of the leadership curricula no standardized leader development training existed in the Navy. Specifically, enlisted leadership training consisted of a variety of topics instructed throughout the sailor's career. There was a lack of a consistent, manageable continuum for enlisted sailors. To satisfy a variety of training requirements, the commanding officer was usually tasked to deliver or ensure delivery of the required and specified training. This approach was ineffective and resulted in non-standardized training being provided throughout the Navy.

As for officers' training, no mandatory leadership training existed in the Navy. The leadership training that did exist was inconsistent and varied by the officer community.

The task of measuring behavior was not simple. What is even more difficult was the attempt to show behavior changes which was the most complicated of all tasks to evaluate. The requirement to measure behavior came about because of budgetary concerns. The Navy has been undergoing an image problem (especially concerning misconduct by some senior leaders) and the Leadership Continuum was the Navy's answer to correcting inappropriate behavior among its leaders.

The Statement of the Problem

The purpose was to evaluate the effectiveness of the leadership continuum curricula by assessing the transfer of classroom learning to behavior on the job.

The Subproblem

The subproblem was to identify, analyze, and interpret the students attitudes concerning the effectiveness of the knowledge and skills taught in the chief petty officer curricula in changing their behavior on the job.

The Hypothesis

The hypothesis stated that the knowledge and skills taught in the Leadership Continuum curricula are effective in changing behavior on the job.

Limitations

The major limitations of the thesis are identified as follows:

1. The findings in this survey were not statistically valid by the strictest Scientific Research Method, because the curriculum was on-line for less than one year. The number responding to the survey was too small to be used in statistical analysis. However, the responses suggested areas for further research and investigation.
2. The survey was driven to some extent by some outside influences, such as the Assistant Secretary of the Navy for Manpower and Reserve Affairs, Chief of Naval Operations, and Chief of Naval Education and Training.
3. There was no single billet or position in the Navy with specific responsibilities for addressing matters unique to leadership training of officers and mid- and senior-level enlisted personnel.
4. Issues and problems relating to leadership in the Navy were considered within the purview of the chain of command.

Delimitations

This survey was restricted to Chief Petty Officers (E-7) who have completed the two-week Chief Petty Officer Leadership Course within the past six months. The respondents came from the San Diego, California, area, since the course was piloted and started at the Naval Leader Training Unit, Coronado, three months before other locations. The study only surveyed attitudes as reported during January through February 1997. The study did not include an experiment to test the validity of the recommendations for improving the Chief Petty Officer course. The study did not recommend changes to the leadership continuum program.

Definitions of Terms

Attitudes. Attitudes are predispositions to respond in a positive or negative way to someone or something in one's environment.³

Behavioral Components. Behavioral components of an attitude are the intentions to behave in a certain way based on a person's specific feelings or attitude.⁴

Beliefs. Beliefs represent ideas about someone or something and the conclusions people draw about them.⁵

Cognitive Components. Cognitive components of an attitude are the beliefs, opinions, knowledge, or information a person possesses.⁶

Cognitive Consistency. Cognitive consistency is the consistency between a person's expressed attitudes and his or her actual behavior.⁷

Cognitive Dissonance. Cognitive dissonance is a state of perceived inconsistency between a person's expressed attitudes and actual behavior.⁸

Cognitive Domain. Cognitive domain focuses on the way an individual acquires and uses knowledge.⁹

Evaluation. Evaluation is the process of making judgments about how to deal with the information once it has been collected.¹⁰

External Validity. External validity is the degree to which the study's results can be generalized across the entire population of people, settings, and other similar conditions.¹¹

Field Survey. Field surveys is a research design that relies on the use of some form of questionnaire for the primary purpose of describing and or predicting some phenomenon.¹²

Internal Validity. Internal validity is the degree to which the results of a study can be relied upon as being correct. It is the strongest when alternative interpretations of the study's findings can be ruled out.¹³

Knowledge. Knowledge basically consists of the recall of universals or specifics, of processes or methods, or of structures, patterns, and so forth.¹⁴

Leadership. Leadership is the process of inducing others to take action toward a common goal.¹⁵

Questionnaire. Questionnaire is a research method that asks respondents for opinions, attitudes, perceptions, and/or descriptions of work-related matters.¹⁶

Reliability. Reliability is the consistency and stability of a score from a measurement scale. There must be reliability for there to be validity or accuracy.¹⁷

Research Design. Research design is an overall plan or strategy for conducting research to test a hypothesis.¹⁸

Validity. Validity is concern with the degree of confidence one can have in the results of a research study. It is focused on limiting research errors so that results are accurate and usable.¹⁹

Values. Values are global beliefs that guide actions and judgments across a variety of situations.²⁰

Assumptions

The primary assumption was that a survey would clearly identify the effectiveness of the leadership continuum in changing behavior on the job. The second assumption was that students will forthrightly state their attitudes towards the leadership training in the survey. The third assumption was that the attitudes observed on the questionnaire are normal and could be observed under the same conditions again in later questionnaires. The fourth assumption was that given the limited time for this study, the CPOs are the most essential students to survey. The fifth assumption was that the knowledge, skills, and attitudes required to be an effective leader can be enhanced through leadership development. The sixth assumption was that the command will give the survey high priority. The seventh assumption was that the survey will provide facts to prove or refute the leadership continuum effectiveness. The eighth assumption was that by analyzing the survey results, we can probably distinguish reality from perception. The ninth assumption was that the education, training, and leadership development of leaders is a worthwhile investment in the Navy's future. The tenth assumption was that the Navy's senior leaders recognize the importance of the effective leadership training and are committed to improving it. The eleventh assumption was that resources would be provided to conduct the survey, data collection, and for statistical analysis. The twelfth assumption was that no survey existed to measure behavior changes on the job after attendance of leadership continuum courses. The thirteenth assumption was that relevant leadership shortfall(s) not previously addressed in the curriculum would be identified.

The next chapter provides the literature review to enhance the study of evaluating the effectiveness of a leadership and or training curriculum.

CHAPTER 2

REVIEW OF LITERATURE

Much of the training literature has commented that companies spend well over \$40 billion a year on training. With such a large amount of money invested in training and training programs, two important questions are consistently asked: Are the organizations investing money in training getting the quality they deserve? Are they receiving the maximum return on their investment?

An investment is an outlay of money usually for income or profit. Individuals and businesses invest in stocks, bonds, and real estates for the purpose of realizing a gain. Success is measured by the amount of gain. Investments which decrease in value are considered loss.

Training is effective to the degree that it enables each individual to produce results on the job using the knowledge and skills taught. When this happens, the organization receives a return on its investment. However, if training is ineffective or is not completely utilized, the organization will not receive a return on its investment and must evaluate if the time and money spent should continue.

What happens when students leave the classroom and return to their jobs? How much transfer of knowledge, skills, and attitudes occurs? In other words, what change in job behavior occurred because people attended a training program?

The purpose of this thesis was to evaluate the effectiveness of the Leadership Continuum curricula by assessing the transfer of classroom learning to behavior on the job. The primary question this thesis addressed: Are the knowledge and skills taught in the Leadership Continuum

curricula effective in changing behavior on the job? When a change in behavior is evaluated, some important decisions have to be made as to is there a need to evaluate, when to evaluate, how often do you evaluate, and how to evaluate. An evaluation is difficult and time-consuming. Evaluating change in behavior is extremely difficult to do, if it can be done at all. An individual cannot change their behavior until they have the chance to do so. Also, predicting when a change in behavior will occur is impossible. Additionally, the individual may employ the learning to the job and like the result, not like the result, or not be permitted to apply the learning due to the organization norm or organization resistance to change.

H. Lindgren (1982), defines leadership as the art, science, or gift by which a person is enabled and privileged to direct the thoughts, plans, and actions of others in such a manner as to obtain and command their obedience, their confidence, their respect, and their loyal cooperation. Leadership concerns human relations, and specifically the relationship between one person and a group, or between leader and followers. Lindgren's theory is very important to all Naval personnel, not just the Chief of Naval Education and Training. Lindgren's theory showed that leadership is the supervision of people by motivation and persuasion, rather than by intimidation or coercion. An effective leader sets the example by adhering to the leadership factors and displaying the most important leadership traits of integrity, dependability, loyalty, unselfishness, sense of humor, initiative, judgment, decisiveness, endurance, self-discipline, courage (moral and physical), and tact. According to E. Flanagan (1985), a leader's responsibilities to those under his command are many, and an effective leader realizes the importance of these responsibilities to the achievement of the organization's goals.

Furthermore, an effective leader seeks and develops a sense of responsibility among subordinates. He maintains their loyalty by treating them as an individual, not as a number; by keeping them informed; and by encouraging them to offer suggestions and or constructive

criticism. A effective leader helps subordinates accomplish a given task by making sure they understand it, they are supervised in undertaking it, and they are trained and operating as a team.

A leader knows the command's capabilities and employs the command in accordance with them. Flanagan shows Naval personnel that possibly the best example a leader sets is being a good follower, in that, a good leader knows the job; establishes objectives and plans for their accomplishments; strives for self-improvement; takes responsibility for the actions regardless of their outcome; is consistent but flexible; and can adapt the leadership to maximize its effectiveness in any given situation.

R. Stogdill (1974) conducted trait studies on managerial and leadership effectiveness. Stogdill found that the following traits increase the likelihood that a leader will be effective: adaptable to situations, alert to social environment, ambitious and achievement-oriented, assertive, cooperative, decisive, dependable, dominant, energetic, persistent, self-confident, tolerant to stress, and willing to assume responsibility. Stogdill also identified skills most frequently found in successful leaders. These skills are: intelligent, conceptually skilled, creative, diplomatic and tactful, fluent in speaking, knowledgeable about group task, organized, persuasive, and socially skilled.

Stogdill's work is important for this thesis project because of the mission of the organization in developing people to become leaders. The challenge for leadership in the Navy of the future is to staff the Navy with able, vigorous, proud professionals who are committed to the mission and personal excellence of military service. To meet the challenges of the future, leaders must recognize certain realities and perceptions that exist within the force structure, and they must be willing to act in consonance with that recognition. The development of sailors into leaders is critical, in that, sailors can identify their own strengths and weaknesses, recognize bad

leadership as well as good, and appreciate the diversity and the dilemmas of problem solving and getting the organization to function.

The path-goal theory of leadership defines how a leader's behavior influences the satisfaction and performance of subordinates.²¹ The path-goal theory asserts that the effect of leader's behavior on subordinate satisfaction and performance depends on the situation, including task characteristics and subordinate characteristics. R. House and G. Dressler (1974) state that a leader's behavior is deemed acceptable to subordinates to the degree that the subordinates perceive such behavior as either an immediate source of satisfaction or as essential to future satisfaction. What the path-goal theory can tell about a leader's behavior is that leaders motivate subordinates by influencing their perception of the likely consequences of different satisfaction and motivation.

In addition to the literature that addresses the concept of a leader and those characteristics that a leader must possess, other literature explains the use and importance of evaluation and sample surveys. L. R. Gay (1985) defines evaluation as the systematic process of collecting and analyzing data in order to determine whether, and or what degree, objectives have been, or are being achieved and used to make decisions.

Training programs are never finished products; they are continually adaptive to information that indicates whether the program is meeting its stated objectives. The evaluation process centers around two procedures: (1) establishing measures of success (criteria) and (2) using experimental and nonexperimental designs to determine what changes have occurred during the training and transfer process. The criteria are based on the behavioral objectives, which were determined by the assessment of instructional need. As standards of performance, these criteria should describe: the behavior required to demonstrate the trainee's skill, the

conditions under which the trainee is to perform, and the lowest limit of acceptable performance (Robert Mager, 1962).

A. Anderson, H. Rossi, and J. Wright (1983) indicate that sample surveys have become the major mode of empirical research in a wide variety of social science disciplines and associated fields. They also found that sample surveys provide much of the data that monitor trends in society, tests theoretical understanding of social psychological processes, provide intelligence to market researchers, guide the campaign strategies of hopeful candidates for public office, and in general give much of the current knowledge about society.

Anderson, Rossi and Wright's work is important in constructing the assessment instrument by providing survey techniques to aid in selecting information to use in determining what information should be given to the respondents, establishing the personal specifications of respondents, selecting a proper location for the survey, and recording and evaluating survey data. Their sample survey guidelines will help in choosing the appropriate design for constructing the survey questionnaire. In addition, they will help the survey group in reviewing previously surveyed information and the conclusions of other investigations, studies, and inspections. The guidelines will help to answer the following key questions: What type of questions to ask (open or close ended)? How to prepare and structure the survey? How to interpret surveyed data?

Another method of survey design can be found in research done by J. Bowditch and A. Buono (1982). Bowditch and Buono address the sources of error in surveys, especially in responses to sensitive, socially disapproved, or incriminating behaviors and attitudes. These survey methods relate in this research project in providing step-by-step guidance to help analyze results of survey data. Bowditch and Buono's work is critical in this study because it addresses the issues of how to conduct an assessment, a sampling, the research design, and a data analysis and to interpret survey data. According to A. Fink and J. Kosecoff (1985): A survey is a method

of collecting information from people about their ideas, feelings, plans, beliefs, and social background. It usually takes the form of questionnaires and interviews. Surveys are most appropriate when the information comes directly from people. Other information collection methods, such as observations, record reviews, and achievement and performance, may be more efficient for getting data from other sources.

Fink and Kosecoff's work is important in this project because it provides the skills to conduct meaningful needs assessment surveys and to evaluate others. The basic methods will help to organize and evaluate the assessment instrument. They address the key issues of the type of survey design to use (analytic or descriptive), the size of the sample population, and rate of response. In addition, Fink and Kosecoff comment that the purpose of a descriptive survey is to count. When it cannot count everyone, it counts a representative sample and then makes inferences about the population as a whole. Descriptive surveys chiefly tell what proportion of members of a population have a certain opinion or characteristic or how often certain events are associated with each other; they are not designed to explain anything or to show causal relationships between one variable and another.

J. D. Drake (1972) suggests that managers are often reluctant to ask sensitive, human relation type questions through fear of insulting the individual or because they are unskilled. Drake's work provides a workable format the evaluation team can use in constructing a survey. The format provides built-in validity for individual styles and personalities. Drake's work will enable the survey team to maintain control of the survey, develop a smooth flowing conversational plan, and make a careful study of the answers given by the respondents.

T. Hariton (1970) states: The basic philosophy underlying the assessment interview is that the best prediction of what a person will do in the future is the extension of what was done in the past. All behavior is caused or motivated, and there is an underlying consistency in each

person's actions. Hariton's work presents the basic principles and practical "do's and don'ts" of the assessment survey. It places emphasis upon the wording and testing of the individual items which make up an assessment.

Hariton states that an important step in developing assessment is pretests. It is extremely difficult to write a questionnaire with no confusing or ambiguous questions. A pretest of twenty to fifty cases is usually sufficient to discover the major flaws in a questionnaire before they damage the main study. Hariton's work will be beneficial to this project, in that, it will provide guidance in pretesting or piloting the assessment prior to conducting the assessment. Pretesting will save time and will prevent the assessment team from wasting a great deal of effort on unintelligible questions which will produce unquantifiable responses and uninterpretable results. In addition, pilot testing will enable the assessment team to focus on the key aim of the study and to make preparations for the fieldwork and analysis to prevent leaving anything out of importance.

A survey usually involves collecting data by interviewing a sample of people selected to represent accurately the population under study. Each person in the survey is asked the same series of questions, and responses are then organized so that conclusions can be drawn from them. This information is used either to solve a particular problem or to add needed information about the problem. Survey questions concern behaviors, attitudes, and background information about individuals (demographic data).

Hariton's work provides step-by-step guidelines in conducting a needs assessment. It is beneficial to the management project, in that, it will provide the simple instructions needed to conduct a assessment, provide information on the type of questions to asked, identify the appropriate time to do a assessment, and explain how to analyze surveyed information.

According to G. Shouksmith (1968), prior to doing an assessment, the first thing that must be established is what it is the researcher wants to assess. One of the sources of unreliability in surveying is bias. To prevent researchers from letting their own prejudices come to the forefront, a list of factors which are to be assessed in the survey should be in front of them.

Shouksmith's work will provide guidance to the survey team in conducting the command assessment. It will explain the following: "Dos" and "Don'ts" of surveying, what to assess, controlling bias and prejudice, and increasing reliability and validity when conducting an survey. To achieve a satisfactory assessment through a survey requires the controlling of three basic areas: background, initial work in organizing and planning the survey and the survey process; orientation and attitude of mind which the surveyor has both to the survey and to the respondent who is surveyed; the method of conducting the survey which the surveyor has, the surveyor's manner with the respondent and ways of obtaining information.

Shouksmith indicates that one way to control for bias in personal surveys is through administrative procedures which simulate anonymity following data collection. These procedures involve schemes for removing personal identifiers while maintaining the ability to link multiple data sources or follow-up interviews. A researcher may maintain two separate files: the data file with the names replaced by identification codes and a file that links these codes with the corresponding names or personal identifiers. These strategies may be fine in maintaining the confidentiality of survey data. At the time of the survey, however, respondents may not be aware of or may not appreciate the protection granted postsurvey. It is easy to forget that a survey involves human subjects, subjects who are often distrustful of research and see little personal benefit in revealing the type of information being solicited.

It might be possible to determine the identify of at least some respondents on the basis of a series of answers. Even after removing or destroying identifiers, multi-way-cross-

classifications of demographic data may produce some cells into which only one respondent can fit, thus destroying anonymity. To avoid this possibility, the research could be compelled to deal only with aggregate data, which would limit the analysis.

Kirkpatrick (1994) suggests that evaluation procedures should consider four levels of criteria--reaction, learning, behavior, and results. Kirkpatrick defines reaction as what trainers thought of the particular program. It does not include a measure of the learning that takes place. In learning, the training analysis is concerned with measuring the learning. Kirkpatrick uses the term behavior in reference to the measurement of job performance. Kirkpatrick uses results to relate the results of the training program to organizational objectives. Kirkpatrick's analysis of criteria represents just one approach to different levels that could be examined.

Michael Patton (1982) uses "evaluation" as a general term that encompasses program evaluation, personnel evaluation, policy evaluation, product evaluation, and other evaluative processes. He indicates that the practice of evaluation involves the systematic collection of information about the activities, characteristics, and outcomes of programs, personnel, and products for use by specific people to reduce uncertainties, improve effectiveness, and make decisions with regard to what those programs, personnel, or products are doing and affecting. The central focus is on evaluation studies and consulting processes that aim to improve program effectiveness. Patton's work is critical to this thesis in that the main focus of the thesis is on evaluating program effectiveness.

Evaluating Behavior Change Literature

The literature available on changes on behavior is limited in comparison to the surplus of books on evaluating training programs and or training effectiveness in general. However, most discussions on training programs and or training effectiveness make reference to evaluating

behavior. Kirkpatrick (1994) and John Schermerhorn, James Hunt and Richard Osborn (1994) focused on evaluating training programs and managing organizational behavior.

Kirkpatrick (1994) created a four-level model for evaluating training programs to explain the ambiguous term evaluation. To many in the education, training, and development field, evaluation means something different. For example, evaluation is viewed as: measuring behavior changes which occurs due to training programs; true evaluation is determined by the final results of a training program; learning is measured by increased knowledge, improved skills, and changes in attitude; and evaluation is done by critique sheets completed at the end of the program.

The four-level model consists of evaluating reaction, learning, behavior, and results. Kirkpatrick's basic premise is that all four levels are important and should be understood by professionals in the fields of education, training, and development. Additionally, Kirkpatrick is of the opinion that if the purpose of the training is to change behavior, all four levels of his model apply.

Additionally, Kirkpatrick provides and explains ten factors to considered when planning and implementing an effective training program: (1) determining needs, (2) setting objectives, (3) determining subject content, (4) selecting participants, (5) determining the best schedule, (6) selecting appropriate facilities, (7) selecting appropriate instructors, (8) selecting and preparing audiovisual aids, (9) coordinating the program, and (10) evaluating program.²² Kirkpatrick recognized that not every organization requires all of the factors when planning and implementing a training program, he point out that management should carefully consider the applicability of each factor.

Anderson, Rossi and Wright (1983) wrote about designing, adapting, testing, and implementing a questionnaire survey. The authors focus is on constructing the survey instrument and interpreting the data.

In summary, I examined the effectiveness of the Leadership Continuum Curricula, in particular the Chief Petty Officer Leadership Course. I evaluated a variety of books on leadership theory, training programs, assessment instruments, and organizational behavior (Lindgren, 1982; Flanagan, 1985; Stogdill, 1974; House and Dressler, 1974; Gay, 1985; Mager, 1962; Anderson, Rossi and Wright, 1985; Bowditch and Buono, 1982; Fint and Kosecoff, 1985; Drake, 1985; Hariton, 1970; Shouksmith, 1968; Kirkpatrick, 1994; Patton, 1982; and Schermerhorn, Hunt and Osborn, 1994).

Regarding leadership theory (Lindgren, 1982; Flanagan, 1985; Stogdill, 1974; and House and Dressler, 1974) focus on effective leaders. Lindgren comments that effective leaders are responsible for their subordinates and should develop them through personal examples and or training. Stogdill's trait studies on managerial and leadership effectiveness identify ways people can be developed into more effective leaders. House and Dressler in their path-goal theory asserts that leaders have influence over their subordinates and can motivate them through influencing their perception of satisfaction and motivation.

Concerning training programs (Gay, 1985; Kirkpatrick, 1994; Mager, 1962; and Patton, 1982) focused on evaluating program effectiveness. The literature states that standards of performance, desired behavior, knowledge and skill level the organization desires should be predetermined. In this study the literature on evaluation was used to determine the data to collect and the method which should be used to collect and analyze the data.

Literature on assessment instruments (Anderson, Rossie and Wright, 1983; Bowditch and Buono, 1982; Fint and Kosecoff, 1985; Drake, 1972; Hariton, 1970; and Shoreksmiths,

1968) mainly focused on structuring the assessment tool and interpreting the data. The literatures provided pertinent information on conducting meaningful needs assessment. The key issues addressed and used in this study are: what to assess; design of the survey; selecting a sample population size; conducting assessment pretest; and pilot testing survey instrument.

Schermerhorn, Hunt, and Osborn (1994) wrote about values, attitudes, and needs, as well as perception and attribution and influences on individual behavior. Values influence attitudes and behavior. Attitudes are influenced by values but focus on specific subject. Attitudes are inferred from the things people say or do. The link between attitudes and behavior is tentative. An attitude results in intended behavior.

The authors identified the top nine work-related values a sample organizational specialists believe important for the workforce: (1) recognition for competence and accomplishments, (2) respect and dignity, (3) personal choice and freedom, (4) involvement in work, (5) pride in one's work, (6) lifestyle quality, (7) financial security, (8) self-development, (9) health and wellness.²³ They describe how these values are important to individuals in the workforce now and in the future, and by paying attention to them, managers can start dealing with workers in the new workforce. They emphasize their point that values are individual preferences, but may tend to be shared within cultures.

The authors devote a section of their book to explaining attitudes, behavior and cognitive consistency, and the components of attitudes and behavior. Each component is described and explained. Additionally, the authors cite work-related examples of the three components of attitudes and three ways of reducing or eliminating cognitive dissonance.

CHAPTER 3

RESEARCH METHODOLOGY

Overview

The focus of this study was to evaluate the effectiveness of the leadership continuum curricula by assessing the transfer of classroom learning to changes in behavior on the job. Thus, this study required the researcher to identify, analyze, and interpret what were the students attitudes concerning the effectiveness of the knowledge and skills taught in the Chief Petty Officer Leadership course and how these variables affected the students behavior on the job.

The Leadership Continuum Survey Questionnaire was the tool used to assess the effectiveness of the leadership course. The model selected was the Kirkpatrick four-level model. This model identifies criteria for assessing and evaluating training. The model was selected because it assesses the students' attitudes and reactions during the piloting stage of the curriculum. The model was also selected because it evaluates response in four areas:

1. Reaction--student attitudes and reaction to the course
2. Learning--what knowledge, skills and abilities are found by the students
3. Behavior--the "transfer" of classroom learning to behavior on the job
4. Results--the impact that individuals have on the command after completing

leadership courses.

The on-the-job behavior measured the extent to which graduates' behavior changed because of the training (i.e., graduate surveys, supervisor surveys). The organizational results measured the effect that training had on the command which the participants were assigned and

on the Navy. This survey served as a guide for evaluating the leadership training of all career Sailors (officers and enlisted) at key leadership milestones in their career. This evaluation enhanced the Navy's ability to develop the finest leaders possible while identifying early those problems that may hinder a leader's performance.

An advantage discussed during the initial meeting with CNET personnel was that the assessment would clearly identify sailors' perceptions or misunderstandings on critical issues involving leadership continuum courses. By analyzing the results of the survey, naval personnel were able to distinguish reality from perception. In addition, any issue(s) not previously addressed would be identified. Once these area of concerns are identified, strategies were developed to address each concern. By addressing these concerns, changes in the Navy's environment was implemented which assisted with the leadership training of naval personnel.

Some of the questions to be answered in this study were: (1) what changes in job behavior occurred as a result of Sailors attending the Leadership course? (2) how adequate and useful was the knowledge and skills training from the course?

Evaluating behavior was difficult and complicated. It was impossible to predict when a change in behavior occurred. Change in behavior may occur at any time or it may never occur. Prior to making the decision to evaluate changes in behavior, the following questions should be answered: When do you evaluate? How often should you evaluate? How will the evaluation be conducted?

Kirkpatrick defines behavior as "the extent to which change in behavior has occurred because the participant attended the training program."²⁴ Four conditions must exist for change in behavior to occur. The person must have a desire to change, the person must know what to do and how to do it, the person must work in the right climate, and the person must be rewarded for changing.

The first two conditions can be accomplished by simply creating a positive attitude toward the desired change and by teaching the necessary knowledge and skills. The right climate points to the participant's first-line supervisor. Reward can be intrinsic, extrinsic, or both. When change in behavior has positive results, feelings of satisfaction, pride and achievement occur. Praise from the supervisor, recognition by coworkers, peers and subordinates are form of extrinsic rewards.

Training will not transfer to behavior change on the job if the climate is not supportive, resentful, and resistance to impede the process. It is very important that the reaction and learning levels are also evaluated. If no change in behavior occurs this could be a result of ineffective training or the wrong command climate.

The individual that received training may conclude one of the following: "I like what happened and I will continue to use the new behavior." "I don't like what happened and I will not continue the new behavior." "I like what happened, but the climate and/or time prevent me from continuing."

The Approach

This section describes the methodology and procedures used to develop the data instruments and to conduct the study. The structure of this paper was formatted based on the Naval Training System Center, Orlando, Florida, Technical Report 89-020 dated July 1989, Senior Enlisted Academy Analysis. The following are covered in this section: concept of the study; curriculum evaluation; data collection instrument; the data; criteria for the admissibility of the data; the research methodology; specific treatment of the data; statistics; the questionnaire; the questionnaire structure; data analyses; and data analyses procedures.

Study Concept

The study was divided into two phases. Phase one involves a comparative analysis of the sister services enlisted training at the Army, Air Force, and Marine Corps, which will not be addressed in this study. Phase two is the focus of this study which consist of reviewing the current Chief Petty Officer curriculum in terms of the course content. The objective of this analysis was to address the adequacy and usefulness of the course content presented.

The Chief Petty Officer (CPO) course graduates were the most readily available source to obtain data concerning the adequacy of the CPO training. The CPO graduates were also considered the best source of data on the usefulness of the CPO competencies on the job. With assistance from the Program Manager of the Leadership Continuum at CNET, a questionnaire was developed to collect data from the graduates of the Chief Petty Officer course.

Curriculum Evaluation

The goal of a comprehensive evaluation of curriculum is to first determine if the right information is being taught and then to determine how well the course participants were taught. The technical approach used in conducting this evaluation emphasized the questionnaire method. The training process was evaluated by graduates' feedback .

Description of Data Collection Instrument

The assessment instrument was designed to assess the competency areas covered in the curriculum. The survey was devised in accordance to a rating (summated) six-point (Likert) scale. The survey instrument was designed to cover *adequacy* and *usefulness* of the training topics.

The CPO graduate questionnaire was divided into four parts. Part one focused on values, part two topics focused on management of resources, part three was titled communication skills,

and part four consisted of topics relating to subordinate development. A copy of the questionnaire is provided at appendix B.

Part one of the questionnaire had seven questions, part two consisted of six questions, part three contained three questions, and part four was composed of six questions. All four parts of the questionnaire focused on the adequacy and usefulness of the training received, organized by specific competency areas as presented in the curriculum. The following scales were designed to measure the adequacy of the course by topic with a range of (0) “do not remember any training on this,” (1) “have not used (this information) yet,” (2) “did not prepare me,” (3) “not (prepared me) too well,” to (4) “(prepared me) very well,” and (5) “(prepared me) extremely well.” The second scale was designed to measure how useful these competency areas (course topics) were in the graduate’s present job. The range was from (a) “not useful at all,” (b) “not too useful,” (c) “fairly useful,” (d) “very useful,” (e) extremely useful,” and (f) “not applicable.”

Survey Procedure

Initially, a pilot test was conducted to determine the validity of the instrument for this study. The pilot test consisted a survey questionnaire distributed to the Chief Petty Officers located in Pensacola, Florida, to see if the survey instrument would collect the data it was intended to collect and to see if there were any problems with the clarity of this survey tool.

According to Anderson, Rossi, and Wright (1983), questionnaires do not emerge fully fledged; they have to be created or adapted, fashioned, and developed after many testing.²⁵ Every aspects of a survey has to be tried out beforehand to ensure it works as intended. This can be accomplished through exploratory pilot work. Exploratory pilot work is primarily concerned with the conceptualization of the research problem. For example, this study involves an

assessment which reviews the leadership process of training sailors to be effective leaders by analyzing all available data related to leadership training of naval personnel.

Data

The data of this research was of two kinds: primary data and secondary data. A short description of the nature of the two types of data follows below. The primary data was the responses to the questionnaire. The published literature on evaluation of training programs provided the secondary data.

Criteria for the Admissibility of the Data

The subjects for this study was Chief Petty Officers (E-7) who completed the leadership curriculum within the past year. A combination of cluster sampling and area sampling was used to select the students. Cluster sampling refers to "sampling a specific group who is considered to represent the entire population. Whereas, area sampling is a form of cluster sampling but is based on geographical location."

Research Methodology

Paul Leedy (1989) points out the importance of the relationship between data and the methodology to extract meaning from the data.²⁶ The methodology must be appropriate. For this study, the data came from simple observational situations through the use of a questionnaire. The questionnaire is a self-report instrument that provides descriptive data.

The descriptive survey method used focused on the attitude held by a population of twenty-five Chief Petty Officers (E-7) at a given time (February 1997). A basis assumption underlying this data was that in the future, under the same conditions, similar attitudes would reoccur.

Specific Treatment of the Data for Each Subproblem

The Subproblem. The subproblem was to identify and analyze the students attitudes concerning the effectiveness of the knowledge and skills taught in the chief petty officer curricula in changing their behavior on the job.

The Data Needed. The data to solve this subproblem included the responses from external survey of newly selected Chief Petty Officer students.

The Location of the Data. Data on Chief Petty Officers attitudes toward the leadership course came from actual students.

The Means of Obtaining the Data. The data on Chief Petty Officers attitudes toward the leadership course came from the questionnaires that students completed in February.

The Treatment of the Data

How the Data was Screened. As stated earlier, the questionnaire was screened by the Program Manager of the Leadership Continuum at CNET in Pensacola, Florida.

How the Item Analysis was Conducted. Upon return of the questionnaires an item analysis of each area was done to determine whether the respondents answered every question. The questionnaires were separated into two sets according to whether the leadership training: (a) did the course prepare you to perform/understand this competency area, (b) how useful is this competency area in your present duties. Since the subsets were not mutually exclusive, the totals of each subset were expected to be different. While the totals were different, the differences were not large enough to warrant analysis.

An item analysis was then performed for each item to identify adequacy and usefulness levels. The total responses were then converted into percentages of adequacy or inadequate and usefulness or not useful.

Percentage values for the item responses expressing inadequate and not useful were compared. Given the small sample size, $N=12$, the differences in categories of inadequacies and not useful were highlighted if the score was greater than 15 percent.

How the Data was Interpreted. Data was presented by per cent values for each item by subgroup and interpreted according to the descriptive values given for each item. General levels of adequacy/usefulness or inadequate/not useful were expected to be apparent.

Statistics

Most survey research data comes from only a fraction of a population, a sample. The idea is to select a small subset of a population that is representative of the whole population. This sample is then surveyed for information. Then statistical analysis provides quantitative description of the sample population. This is then extrapolated to the entire population. Challenges arise in the selection of the sample, in obtaining an adequate response rate, and in the use of statistics to infer descriptions of the population.

A survey was distributed to twenty-five newly selected Chief Petty Officers completing the CPO Leadership training within the past twelve months. The survey attempted to survey at least 10 percent of the population. Only 50 percent of the surveys were returned, $N=12$.

Obtaining an adequate response rate was a serious challenge regarding this study. Because, without a high percentage of those in the sample responding, a major source of survey error occurs. The significance of the survey error depends on the percentage not responding and the extent of the bias of those not responding (i.e., different from the population).

The response percentage is determined by dividing the total number sampled by the response rate. Plainly stated, the number of people responding divided by the number of people sampled is the response percentage. Although there is no written or required standard for a

minimum acceptable response rate, the Office of Management and Budget, which reviews surveys performed under contract for the federal government, generally asks that a response rate be more than 75 percent.²⁷ This confirms that, after the statistics are conducted, the subsequent description of the population is insufficiently credible, primarily due to small sample size. However, due to the leadership course being on line less than one year, this research focused on a class size (twenty-five students). Therefore, a response rate of at least 45 percent was determined to be adequate for this study.

Survey error also depends on the extent of the bias to which those not responding differ from the population. Nonrespondents are self-selected, they may not represent the entire population. By not responding, the nonrespondents may skew the sample which in turn will affect the statistics to describe the population. The nonresponse percentage in this research is mitigated by the fact that the non-response is against the populations and not the samples.

Questionnaires

A mail questionnaire was chosen initially to obtain the required survey information. The mail questionnaire was chosen over the telephone interview and the face-to-face interview because it was less expensive and not time consuming. The mail questionnaire also reduced the possibilities of such factors as intimidation that could occur through direct interface of the participants with the senior ranking officer.

The mail questionnaire is probably the most used and most criticized data-gathering device.²⁸ However, it is the least resource intensive mode of data collection. The mail questionnaire does have some weaknesses. The major weakness of the mail questionnaire is the absence of control. Specific problems include a lack of control over who responds and what percentage responds.

To rebut these problems, the following actions were taken: the researcher mailed twenty-five copies of the assessment instrument with cover letter (Appendix A) to the Program Manager of the Leadership Continuum Program. The Program Manager distributed the questionnaires to and collected them from the participants and returned them to the researcher.

To reduce the nonresponse percentage, Fowler (1991) provided the following guidance:

1. The task should be clear.
2. The questions should be attractively spaced, easy to read, and uncluttered.
3. The response task itself should be easy. Do not ask respondents to provide written answers, except at their option. The response task should be to check a box or circle in a number of some other equally simple task.²⁹

The questionnaire also used closed questions. Closed questions are when the questionnaire provides the acceptable answers. This was done to make the task easier for the respondents. The respondent had to only choose from the selection provided. Additionally, closed questions ensured the ability to compare response across populations, which is very difficult if each respondent chooses a variety of answers to respond to the question. Furthermore, a follow-up was conducted to improve the response rate. The surveys were followed up by the Leadership Continuum Program Manager.

Questionnaire Structure

In addition to the decision to use closed questions, two other crucial decisions were made concerning the questionnaire structure. First, the decision to use ordinal scales, and the second was scale numbering.

Ordinal scales are the dominant scale for measuring subjective states. Perceptions are subjective; therefore, the decision to use ordinal scales for the questionnaire made sense.

With the knowledge that ordinal scales were only useful for indicating order, the scales for the continuum was designed by first identifying what was to be measured. The survey was to measure the adequacy and usefulness of the leadership training received.

For the adequacy of the leadership training, the continuum selected had six values allowing the respondent to select from do not remember any training on this competency area to extremely well (Figure 1).

Did the course prepare you to perform/understand this competency area?						
	Do Not Remember 0	Not Used 1	Not Prepared 2	Not Too Well 3	Very Well 4	Extremely Well 5
Principles	_____	_____	_____	_____	_____	_____
Ethical Dilemmas	_____	_____	_____	_____	_____	_____
Navy Core Values	_____	_____	_____	_____	_____	_____
Sexual Harassment	_____	_____	_____	_____	_____	_____

Figure 1. Example of Questionnaire

The purpose of the scale was to give the respondents a wide range of selections to capture their attitudes (Figure 2).

How useful is this competency area in your present duties?						
	Not Useful At All a	Not too Useful b	Fairly Useful c	Very Useful d	Extremely Useful e	Not Applicable f
Principles	_____	_____	_____	_____	_____	_____
Ethical Dilemmas	_____	_____	_____	_____	_____	_____
Navy Core Values	_____	_____	_____	_____	_____	_____
Sexual Harassment	_____	_____	_____	_____	_____	_____

Figure 2. Example of Questionnaire Selection

For the usefulness of the leadership training the continuum selected also had 6 values allowing the respondents to select from not useful at all to not applicable.

Questionnaire Reliability and Validity

One of the questionnaire's goals was to include reliable and valid questions. Action was taken to ensure both occurred. When two respondents have the same perceptions, they should answer the question the same manner. When this happens, there is reliability. If the respondents answer differently, random error is presented and the measurement is less reliable. To ensure reliability the researcher used closed questions. This allowed the responses to be compared without interpreting word meaning. When respondent answers correspond to what they are intended to measure, the questions are valid. Fowler provides three steps to the improvement of validity of subjective measures.

First, he recommends making the questions as reliable as possible. The questionnaire sought to do just that. Second, Fowler states that having more ordered classes along a continuum is better than having fewer. Third, he cautions against having more precision of discrimination than the respondents can distinguish among. Random error surfaces if this transpires.

CHAPTER 4

ANALYSIS

The purpose of this study was to evaluate the effectiveness of the leadership continuum curricula by assessing the transfer of classroom learning to behavior on the job. The subject of this study were Chief Petty Officers (E-7) who completed the leadership course within the past year. The survey results were analyzed against the subproblem.

The Subproblem

The subproblem was to identify and analyze the student's attitudes concerning the adequacy and usefulness of the knowledge and skills taught in the chief petty officer curricula; and the impact these variables had on changing their behavior on the job.

Data Obtained

Twelve of the twenty-five respondents returned their questionnaires. This resulted in a total response rate of 48 percent. Response rates for the population met the requirement for this study.

Administration

The researcher mailed the questionnaires with a cover letter to the Program Manager of the Leadership Continuum at CNET. The questionnaires were distributed and collected by the Program Manager who returned the questionnaires to the researcher. All respondents of the

questionnaire met the criteria of successfully completing the Chief Petty Officer course within the last twelve months.

Responses to the Adequacy Scale

This section of the study presents a summary of the ratings and comments from the survey of the Chief Petty Officer leadership course. First, data are presented on the analysis of the graduate rating on the adequacy of training they received in preparing them for their leadership positions.

The data displayed are from the total participants responding. There were 6 anchor points ranging from 0 to 5 with 5 representing the highest and 0 and 2 signaled cause for concern.

Values

The competencies identified under values are principles, ethical dilemmas, Navy core values, sexual harassment, command unity/diversity, equal opportunity, and fraternization. For this study and because of the small sample size (N=12) data on all topic areas was reported.

Table 1. Responses to the Competency *Principles*

Rating Scale		Percent	# Responded
0	Do not remember	25%	3
1	Have not used yet	8%	1
2	Did not prepare me	0%	0
3	Not too well	8%	1
4	Very well	33%	4
5	Extremely well	25%	3

The majority (58%) of the subjects reacted favorably to the training, one-fourth did not recall the training.

Table 2. Responses to the Competency *Ethical Dilemmas*

Rating Scale		Percent	# Responded
0	Do not remember	0%	0
1	Have not used yet	0%	0
2	Did not prepare me	0%	0
3	Not too well	0%	0
4	Very well	42%	5
5	Extremely well	58%	7

Table 3. Responses to the Competency *Navy Core Values*

Rating Scale		Percent	# Responded
0	Do not remember	0%	0
1	Have not used yet	0%	0
2	Did not prepare me	0%	0
3	Not too well	0%	0
4	Very well	42%	5
5	Extremely well	58%	7

All subjects responded that the training on ethics and values to be more than optimal.

Table 4. Responses to the Competency *Sexual Harassment*

Rating Scale		Percent	# Responded
0	Do not remember	0%	0
1	Have not used yet	0%	0
2	Did not prepare me	0%	0
3	Not too well	50%	6
4	Very well	42%	5
5	Extremely well	8%	1

There was an equal division split in the rating of the sexual harassment competency. Half (50%) found the training to be adequate and the other 50% rated this training as not too well.

Table 5. Responses to the Competency *Command Unity/Diversity*

Rating Scale		Percent	# Responded
0	Do not remember	0%	0
1	Have not used yet	0%	0
2	Did not prepare me	8%	1
3	Not too well	50%	6
4	Very well	33%	4
5	Extremely well	8%	1

Forty-one percent of the participants rated this competency as adequate. Over 50% of the participants were not satisfy with this competency area.

Table 6. Responses to the Competency *Equal Opportunity*

Rating Scale		Percent	# Responded
0	Do not remember	16%	2
1	Have not used yet	0%	0
2	Did not prepare me	16%	2
3	Not too well	16%	2
4	Very well	50%	6
5	Extremely well	0%	0

Half the responents believed there were properly trained in this area. However, 32% found their training to be insufficient.

Table 7. Responses to the Competency *Fraternization*

Rating Scale		Percent	# Responded
0	Do not remember	16%	2
1	Have not used yet	8%	1
2	Did not prepare me	0%	0
3	Not too well	50%	6
4	Very well	8%	1
5	Extremely well	16%	2

Half of the participants rated this topic “not too well” and only 24% of the participants thought the competency to be addressed well.

Management of Resources

The competencies identified under management of resources are situational leadership, total quality tools, process improvement, conflict management, risk management, and stress management. As with values, data in all topic area was reported.

Table 8. Responses to the Competency *Situational Leadership*

Rating Scale		Percent	# Responded
0	Do not remember	0%	0
1	Have not used yet	0%	0
2	Did not prepare me	0%	0
3	Not too well	0%	0
4	Very well	25%	3
5	Extremely well	75%	9

All participants responded that the training on situational leadership was sufficiently covered.

Table 9. Responses to the Competency *Total Quality Tools*

Rating Scale		Percent	# Responded
0	Do not remember	0%	0
1	Have not used yet	42%	5
2	Did not prepare me	0%	0
3	Not too well	25%	3
4	Very well	25%	3
5	Extremely well	8%	1

Unable to fairly assess since a significant number of subjects have not used this tool.

Nevertheless those that have used this tool found it to be useful.

Table 10. Responses to the Competency *Process Improvement*

Rating Scale		Percent	# Responded
0	Do not remember	0%	0
1	Have not used yet	42%	5
2	Did not prepare me	0%	0
3	Not too well	25%	3
4	Very well	25%	3
5	Extremely well	8%	1

As with total quality tools competency above, unable to accurately assess since the majority of the participants (42%) have not use this competency yet. However, it is important to note that 25% did not believe they were sufficiently trained in this area.

Table 11. Responses to the Competency *Conflict Management*

Rating Scale		Percent	# Responded
0	Do not remember	0%	0
1	Have not used yet	16%	2
2	Did not prepare me	0%	0
3	Not too well	8%	1
4	Very well	42%	5
5	Extremely well	33%	4

The majority of the respondents (75%) believed they received adequate training on this area.

Table 12. Responses to the Competency *Risk Management*

Rating Scale		Percent	# Responded
0	Do not remember	0%	0
1	Have not used yet	25%	3
2	Did not prepare me	8%	1
3	Not too well	16%	2
4	Very well	16%	2
5	Extremely well	33%	4

Twenty-five percent of the respondents have not used this competency yet. The combined score of 2 and 3 on the rating scale revealed that 24% was not satisfy with this topic. Whereas, the combined score of 4 and 5 on the rating scale revealed that 49% of the participants were satisfy with this topic.

Table 13. Responses to the Competency *Stress Management*

Rating Scale		Percent	# Responded
0	Do not remember	0%	0
1	Have not used yet	0%	0
2	Did not prepare me	0%	0
3	Not too well	0%	0
4	Very well	16%	2
5	Extremely well	83%	10

All participants indicated they received suitable training on this area.

Communication Skills

The competencies under communication skills were effective listening, written communications, and situational communications.

Table 14. Responses to the Competency *Effective Listening*

Rating Scale		Percent	# Responded
0	Do not remember	0%	0
1	Have not used yet	0%	0
2	Did not prepare me	0%	0
3	Not too well	25%	3
4	Very well	33%	4
5	Extremely well	42%	5

Twenty-five percent of the participants rate this competency as “not too well”. Seventy-five percent rated this area ranging from very well to extremely well.

Table 15. Responses to the Competency *Written Communications*

Rating Scale		Percent	# Responded
0	Do not remember	0%	0
1	Have not used yet	0%	0
2	Did not prepare me	0%	0
3	Not too well	0%	0
4	Very well	42%	5
5	Extremely well	58%	7

All participants thought this area was adequately addressed.

Table 16. Responses to the Competency *Situational Communications*

Rating Scale		Percent	# Responded
0	Do not remember	0%	0
1	Have not used yet	0%	0
2	Did not prepare me	8%	1
3	Not too well	8%	1
4	Very well	50%	6
5	Extremely well	33%	4

Majority of respondents (83%) stated that the training on this area was addressed well.

Subordinate Development

The competencies under subordinate development were counseling, performance evaluation, career planning, mentoring, recognition/award, and quality of life.

Table 17. Responses to the Competency *Counseling*

Rating Scale		Percent	# Responded
0	Do not remember	0%	0
1	Have not used yet	8%	1
2	Did not prepare me	0%	0
3	Not too well	0%	0
4	Very well	33%	4
5	Extremely well	58%	7

Majority (91%) of the participants thought this competency was well covered.

Table 18. Responses to the Competency *Performance Evaluation*

Rating Scale		Percent	# Responded
0	Do not remember	0%	0
1	Have not used yet	33%	4
2	Did not prepare me	0%	0
3	Not too well	0%	0
4	Very well	16%	2
5	Extremely well	50%	6

Could not fairly assess this area since one-third have not used this competency yet.

Table 19. Responses to the Competency *Career Planning*

Rating Scale		Percent	# Responded
0	Do not remember	8%	1
1	Have not used yet	25%	3
2	Did not prepare me	0%	0
3	Not too well	25%	3
4	Very well	33%	4
5	Extremely well	8%	1

Could not fairly assess the training on this area since one-fourth of the respondents have not used this competency yet and one-fourth did not think the training was adequate.

Table 20. Responses to the Competency *Mentoring*

Rating Scale		Percent	# Responded
0	Do not remember	25%	3
1	Have not used yet	16%	2
2	Did not prepare me	8%	1
3	Not too well	25%	3
4	Very well	25%	3
5	Extremely well	0%	0

Sixty-six percent of the participants had not recall or indicated the mentoring training did not prepare them for the role and a quarter of the subjects felt they were very well trained in the mentoring component.

Table 21. Responses to the Competency *Recognition/Award*

Rating Scale		Percent	# Responded
0	Do not remember	0%	0
1	Have not used yet	25%	3
2	Did not prepare me	0%	0
3	Not too well	16%	2
4	Very well	25%	3
5	Extremely well	33%	4

Majority of the participants thought the competency was presented very/extremely well. However, 25% have not use yet and 16% did not think the training was ample.

Table 22. Responses to the Competency *Quality of Life*

Rating Scale		Percent	# Responded
0	Do not remember	0%	0
1	Have not used yet	8%	1
2	Did not prepare me	0%	0
3	Not too well	33%	4
4	Very well	42%	5
5	Extremely well	16%	2

Over one-half of the participants found the rated the training favorably; one-third did not think training was satisfactory.

Responses to Usefulness Scale

The respondents' ratings of the usefulness of the CPO leadership training to their present job is presented below. The data presented are from a six-point rating scale, ranging from "a" to "f" with "e" being the highest and "a" the lowest. The rating "f" is not significant in that it labeled not applicable. For this study, not applicable infer that the participant is not in a leadership or supervisory job. In analyzing the data, the researcher combined "a" and "b" for a low or negative response. The researcher also combined the rating "c", "d" and "e" for a high or positive response. Again, data on all topic area was reported.

Values

The competencies identified under values are principles, ethical dilemmas, Navy core values, sexual harassment, command unity/diversity, equal opportunity, and fraternization. For this study and because of the small sample size (N=12) data on all topic areas was reported.

Table 23. Responses to the Competency *Principles*

Rating Scale		Percent	# Responded
a	Not useful at all	8%	1
b	Not too useful	16%	2
c	Fairly useful	8%	1
d	Very useful	25%	3
e	Extremely useful	16%	2
f	Not applicable	25%	3

One-fourth of the participants believe the training was deficient and one-fourth thought the training was not applicable. However, 49% of the subjects found this area to be at last fairly useful.

Table 24. Responses to the Competency *Ethical Dilemmas*

Rating Scale		Percent	# Responded
a	Not useful at all	0%	0
b	Not too useful	0%	0
c	Fairly useful	8%	1
d	Very useful	25%	3
e	Extremely useful	67%	8
f	Not applicable	0%	0

All participants rated ethical dilemmas and core values training to be more than optimal.

Table 25. Responses to the Competency *Navy Core Values*

Rating Scale		Percent	# Responded
a	Not useful at all	0%	0
b	Not too useful	0%	0
c	Fairly useful	8%	1
d	Very useful	16%	2
e	Extremely useful	75%	9
f	Not applicable	0%	0

Table 26. Responses to the Competency *Sexual Harassment*

Rating Scale		Percent	# Responded
a	Not useful at all	0%	0
b	Not too useful	8%	1
c	Fairly useful	58%	7
d	Very useful	33%	4
e	Extremely useful	0%	0
f	Not applicable	0%	0

Majority of the participants (91%) considered the training fairly to extremely useful.

Table 27. Responses to the Competency *Command Unity/Diversity*

Rating Scale		Percent	# Responded
a	Not useful at all	0%	0
b	Not too useful	8%	1
c	Fairly useful	42%	5
d	Very useful	50%	6
e	Extremely useful	0%	0
f	Not applicable	0%	0

Three-fourth of the respondents considered the training useful.

Table 28. Responses to the Competency *Equal Opportunity*

Rating Scale		Percent	# Responded
a	Not useful at all	0%	0
b	Not too useful	8%	1
c	Fairly useful	42%	5
d	Very useful	25%	3
e	Extremely useful	8%	1
f	Not applicable	16%	2

Majority of the respondents considered the training useful.

Table 29. Responses to the Competency *Fraternization*

Rating Scale		Percent	# Responded
a	Not useful at all	0%	0
b	Not too useful	8%	1
c	Fairly useful	33%	4
d	Very useful	25%	3
e	Extremely useful	16%	2
f	Not applicable	16%	2

Seventy-four percent of the subjects considered the training on this area useful.

Management of Resources

The competencies identified under management of resources are situational leadership, total quality tools, process improvement, conflict management, risk management, and stress management.

Table 30. Responses to the Competency *Situational Leadership*

Rating Scale		Percent	# Responded
a	Not useful at all	0%	0
b	Not too useful	0%	0
c	Fairly useful	0%	0
d	Very useful	25%	3
e	Extremely useful	75%	9
f	Not applicable	0%	0

All subjects found the training on this area very/extremely useful.

Table 31. Responses to the Competency *Total Quality Tools*

Rating Scale		Percent	# Responded
a	Not useful at all	16%	2
b	Not too useful	0%	0
c	Fairly useful	33%	4
d	Very useful	16%	2
e	Extremely useful	8%	1
f	Not applicable	25%	3

Over half the participants found the training was useful. However, 41% considered it to be not applicable or useless.

Table 32. Responses to the Competency *Process Improvement*

Rating Scale		Percent	# Responded
a	Not useful at all	16%	2
b	Not too useful	0%	0
c	Fairly useful	25%	3
d	Very useful	16%	2
e	Extremely useful	16%	2
f	Not applicable	25%	3

Half the participants found the training useful and 41% considered it not applicable or useless.

Table 33. Responses to the Competency *Risk Management*

Rating Scale		Percent	# Responded
a	Not useful at all	0%	0
b	Not too useful	8%	1
c	Fairly useful	8%	1
d	Very useful	42%	5
e	Extremely useful	16%	2
f	Not applicable	25%	3

Majority of the respondents found the training useful.

Table 34. Responses to the Competency *Stress Management*

Rating Scale		Percent	# Responded
a	Not useful at all	0%	0
b	Not too useful	0%	0
c	Fairly useful	8%	1
d	Very useful	16%	2
e	Extremely useful	75%	9
f	Not applicable	0%	0

One hundred percent of the participants found the training on this area useful.

Communication Skills

The competencies under communication skills were effective listening, written communications, and situational communications.

Table 35. Responses to the Competency *Effective Listening*

Rating scale		Percent	# Responded
a	Not useful at all	0%	0
b	Not too useful	0%	0
c	Fairly useful	33%	4
d	Very useful	25%	3
e	Extremely useful	42%	5
f	Not applicable	0%	0

All subjects responded that the training on effective listening, written communications, and situational communications to be worthwhile.

Table 36. Responses to the Competency *Written Communications*

Rating Scale		Percent	# Responded
a	Not useful at all	0%	0
b	Not too useful	0%	0
c	Fairly useful	16%	2
d	Very useful	42%	5
e	Extremely useful	42%	5
f	Not applicable	0%	0

Table 37. Responses to the Competency *Situational Communications*

Rating Scale		Percent	# Responded
a	Not useful at all	0%	0
b	Not too useful	0%	0
c	Fairly useful	8%	1
d	Very useful	16%	2
e	Extremely useful	75%	9
f	Not applicable	0%	0

Subordinate Development

The competencies under subordinate development were counseling, performance evaluation, career planning, mentoring, recognition/award, and quality of life.

Table 38. Responses to the Competency *Counseling*

Rating Scale		Percent	# Responded
a	Not useful at all	0%	0
b	Not too useful	0%	0
c	Fairly useful	16%	2
d	Very useful	0%	0
e	Extremely useful	83%	10
f	Not applicable	0%	0

All participants found the training on this area useful; a significant number rated the training as extremely useful.

Table 39. Responses to the Competency *Performance Evaluation*

Rating Scale		Percent	# Responded
a	Not useful at all	0%	0
b	Not too useful	0%	0
c	Fairly useful	8%	1
d	Very useful	8%	1
e	Extremely useful	75%	9
f	Not applicable	8%	1

Majority of the participants found the training extremely useful.

Table 40. Responses to the Competency *Career Planning*

Rating Scale		Percent	# Responded
a	Not useful at all	8%	1
b	Not too useful	16%	2
c	Fairly useful	16%	2
d	Very useful	25%	3
e	Extremely useful	16%	2
f	Not applicable	16%	2

Forty percent of the subjects thought the was not useful or either not applicabe in their current job. Of the remaining 60% more than half found the training to be very useful.

Table 41. Responses to the Competency *Mentoring*

Rating Scale		Percent	# Responded
a	Not useful at all	8%	1
b	Not too useful	25%	3
c	Fairly useful	16%	2
d	Very useful	16%	2
e	Extremely useful	0%	0
f	Not applicable	33%	4

Each category was equally divided among participants. However, a quarter of the participants believed the training was not too useful and one-third thought it was not applicable to their job.

Table 42. Responses to the Competency *Recognition/Award*

Rating Scale		Percent	# Responded
a	Not useful at all	0%	0
b	Not too useful	0%	0
c	Fairly useful	16%	2
d	Very useful	33%	4
e	Extremely useful	25%	3
f	Not applicable	25%	3

Majority (74%) of the subjects found the training useful; while one-fourth did not consider the training applicable.

Table 43. Responses to the Competency *Quality of Life*

Rating Scale		Percent	# Responded
a	Not useful at all	0%	0
b	Not too useful	8%	1
c	Fairly useful	16%	2
d	Very useful	42%	5
e	Extremely useful	25%	3
f	Not applicable	8%	1

Eighty-three percent of the participants scored the training as useful. Small percentages of the participants rated the training as not applicable or not too useful.

Summary

An item analysis was conducted for each response. An item analysis is a set of procedures by which is demonstrated how effectively a given test item functions within the total test. Each item is an element within a test, a part of a larger whole. It is a test within a test, and the validity of the entire test is dependent upon the validity of each of these smaller tests. One of the major functions of an item analysis is to provide an estimate of the validity of each item.³⁰ The major purpose of item analysis is to discover which items are functioning well and which are functioning poorly.³¹ Once identified, the latter of these defective items can be identified in an attempt to isolate the reasons for their malaise, and, if they are remediable, they can be revised for subsequent use. If a good job of revision is done, the items may function much better the next time. Perhaps it may be discovered that the reason an item is not functioning well does not reside within the item. It may be a deficiency within the class or the instruction.

The items was analyzed using the Likert Method or summated ratings. The Likert Method or summated ratings takes less time to construct and offers an interesting possibility for the student of opinion research.³² The attitude or opinion scale may be analyzed in several ways. The simplest way to describe opinion is to indicate percentage responses for each individual statement.³³ For this study, a six-point response was used in lieu of the usual five points.

The Likert scaling technique assigns a scale value to each of the six responses. Thus, the instrument yields a total score for each respondent and a discussion of each individual item, while possible, is not necessary. Starting with a particular point of view, all statements favoring this position would be scored.

Table 44. Likert Scaling Techniques

Adequacy	Scale value	Usefulness
Extremely well	5	Extremely useful
Very well	4	Very useful
Not too well	3	Fairly useful
Have not used yet	2	Not too useful
Did not prepare me	1	Not useful at all
Do not remember any training on this	0	Not applicable

The test scores obtained on all items would then measure the respondent's favorable attitude toward the given point of view.³⁴ The respondents average ratings of the adequacy of the training received in preparing them for the job performance of each competency cluster and the frequency distribution of ratings are shown topic by topic and are presented in appendix C. The respondents average ratings of the usefulness of the training received in their present duties is located in appendix D. The usefulness competencies were also clustered and the frequency distribution of ratings were also shown topic by topic.

Any items with a favorable response of 50 percent or more were considered positive. Items below 35 percent were considered unfavorable or negative, whereas, items between 35 percent and 49 percent were considered neutral. The same was true for reverse responses. That is, those items with 50 percent or higher unfavorable responses were considered negative, and so on.

Under adequacy, the findings revealed that there were high positive responses to the items titled: principles, ethical dilemmas, navy core values, situational leadership, total quality tools, conflict management, stress management, effective listening, written communications, situational communications, counseling, performance evaluation, career planning, recognition/award, and quality of life. The unfavorable or negative items were: sexual harassment, command unity/diversity, equal opportunity, fraternization, and mentoring. The neutral item was process improvement.

Because of the percentages, a few of the items were listed in at least two categories. For example, sexual harassment is listed in both the unfavorable as well as the neutral category. Fifty percent of the respondents stated that the course did not prepare them to perform/understand this competency area. Whereas, 41 percent of the respondents thought that the course prepared them. The same holds true for quality of life. Fifty-seven percent of the respondents thought the course adequate, but 33 percent thought the course inadequate.

Upon reviewing the usefulness section the findings revealed favorable responses to the items titled: principles, ethical dilemmas, navy core values, sexual harassment, command/unity, equal opportunity, fraternization, situational leadership, total quality tools, process improvement, conflict management, stress management, effective listening, written communications, situational communications, counseling, performance evaluation, career planning, recognition/award, and quality of life. Mentoring was considered unfavorable and risk

management was considered neutral. That is, 25 percent of those responding thought mentoring was not useful in their present job, whereas, 32 percent of the respondents thought mentoring was useful.

The findings revealed that overall the respondents perceived the Chief Petty Officer Leadership course to be adequate and useful. The high percentages for most items are apparent. However, the respondents perceived a high dissatisfaction for fraternization, and command unity/diversity topics.

Respondents perceived the topic on mentoring as not being adequate nor useful. Forty-one percent of the participants perceived the mentoring topic as not being adequate and 25 percent indicated that the topic on mentoring is not useful. This was the only topic that yielded a double negative response.

The respondents seems to be very pleased with ethical dilemmas, Navy core values, situational leadership, stress management, written communications, effective listening, situational communications, and conflict management. These topic areas received a favorable response of 74% or more in both adequacy and usefulness.

CHAPTER 5

CONCLUSION AND RECOMMENDATIONS

Conclusion

This section of the study contains conclusions drawn from the findings presented in the analysis section. This study was conducted to evaluate the effectiveness of the leadership continuum curricula. This has been done by assessing the transfer of classroom learning to changes in behavior on the job. The Kirkpatrick model served as the training evaluation guide for formatting this study.

A survey questionnaire was the methodology tool used to conduct this study. The questionnaire allowed for analysis and interpretation of participants attitudes regarding the Chief Petty Officer Leadership Course.

In view of the small sample size (N=12) the findings from this study should not be generalized. Nonetheless, the following information is of great importance to adherence to high organizational and training capabilities. This serves as the first instrument used to assess the preceived management and leadership adequancies and usefulness levels of preparation among sailors 12 months after completing the CPO course. The outcome of this study reveals many strengths and a few weaknesses in the CPO curriculum.

The scientific data favorably supports the current curriculum in the adequacy areas of management of resources, communication skills, and subordinate development. Overwhelming in these three categories the sailors preceived themselves as being adequate to extremely well trained. One exception exists under the subordinate development category in the area of

mentoring. The shortfall in this area has significantly negative implications for the Navy CPO Corps if this area of the course is not improved. If there are not changes in mentoring and training it can adversely impact the successful developmental training of future CPOs.

A second shortfall under adequacy is in the values competencies of sexual harassment, command unity and diversity, equal opportunity, and the fraternization components. Surprisingly, at least 50 percent of the participants consistently indicated training preparation problems in these areas. In spite of the command emphasis and the priority of precedence on annual formal training over the last ten years as directed from the senior Navy leadership the results of this study are alarming and troubling.

The Chief Petty Officer curriculum received overwhelming high marks by the survey participants in all categories regarding its usefulness; with the exception being an equal distribution of responses (ranging from not useful, useful, na) in the mentoring competency. As previously mentioned the success of the Navy hinges on maintaining a highly proficiently trained CPO Corps, that is committed to developing subordinates through mentorship. The CPO curriculum must address how classroom learning can apply and be successfully employed in the workplace.

The statistical analysis of this study favorably supports the current Chief Petty Officer Leadership curriculum. Overall, the data is evidence that the participants found the course adequate and useful in the workplace during their initial 12 months after completing the course. However, attention must be given and strategies developed and plans executed to enhance training in the values and subordinate development categories.

The Chief Petty Officer Leadership course appears to be training the correct competencies according to the respondents. The CPO course is effectively preparing chiefs for leadership positions.

Recommendations

This section of the study contains recommendations resulting from a review of the Chief Petty Officer Leadership course on the effectiveness of the knowledge and skills taught in the Chief Petty Officer Leadership course in changing their behavior on the job.

The curriculum, as designed, provides quality instruction which meets the Navy's needs in leadership skill preparation. Since the respondents found the topics covered to be appropriate and well presented, any changes to the curriculum should be directed in the categories of values and subordinate development.

A continuing external evaluation program is required for the Chief Petty Officer curriculum. As with any curriculum, monitoring and feedback from students on the effectiveness of the curricula in meeting their needs is very important. Periodic evaluation is recommended to review relationships between CPO leadership training and later on-the-job performance. This effort is possible through surveys such as the questionnaire used in this study.

The design of the external survey could be the same as the questionnaire used in this study or modify it to meet your situation. For example, you may want to have supervisors and/or others who are in a position to observe the behavior of participants. You may want to use a control group to eliminate other factors that could have caused changes in either behavior or results.

When periodic evaluation on adequacy and usefulness of curriculum content is done, it is recommended that a sample group of at least 60 participants be randomly selected annually. The instrument should be submitted 12 to 18 months after graduation. Use demographic data and add some open-ended questions to refine the profile of the student selected.

In order for this kind of evaluation to be effective, the curriculum must be stable. During this evaluation, minor revisions were made to the curriculum. Because this course is convened a

number of times a year, it would be worthwhile to spend the time and money that it takes to do a detailed evaluation. It was refreshing to find such positive responses from the participants. If possible, an evaluation to measure behavior and results on a before-and-after basis should be done. Additionally, an evaluation to determine how behavior and results after the training differed from what they had been before the training would be helpful.

Suggestions for Further Research

The purpose of this study was to evaluate the effectiveness of the leadership continuum curricula by assessing the transfer of classroom learning to changes in behavior on the job. Thus, this study required the researcher to identify and analyze the students attitudes concerning the effectiveness of the knowledge and skills taught in the Chief Petty Officer Leadership course in changing their behavior on the job.

Additionally, a scientific investigation should be conducted analyzing the mentoring, sexual harassment, command unity and diversity, equal opportunity, and fraternization competencies identified in this study. There is the opportunity to expand on this research. Further study could be done on the effectiveness of the other seven leadership continuum courses.

ENDNOTES

Chapter 1

¹"U.S. Navy, Zero-Based Training and Education Review: Final Report" (Washington: Department of the Navy, 1993), Forward.

²Donald L. Kirkpatrick, Evaluating Training Programs: The Four Levels (San Francisco: Berrett-Koehler Publishers, 1994), 18.

³John R. Shermerhorn, Jr., James G. Hunt, and Richard N. Osborn, Managing Organizational Behavior, 5th ed., (New York: John Wiley and Son, Inc., 1994) 139.

⁴Ibid., 141.

⁵Ibid., 140.

⁶Ibid.

⁷Ibid., 142.

⁸Ibid., 14.

⁹W. James Popham, Educational Evaluation, 3rd ed., (Boston: Allyn and Bacon, 1993), 59.

¹⁰Shermerhorn, Hunt, and Osborn, 723.

¹¹Ibid., 720.

¹²Ibid., 722.

¹³Ibid., 719.

¹⁴Kirkpatrick, 22.

¹⁵Gary A. Yukl, Leadership in Organizations, 2nd ed., New Jersey: Prentice-Hall, Inc., 1989), 99.

¹⁶Shermerhorn, Hunt, and Osborn, 721.

¹⁷Ibid., 720.

¹⁸Ibid., 721.

¹⁹Ibid., 719.

²⁰Ibid., 136.

Chapter 2

²¹Yukl, 31.

²²Kirkpatrick, 3.

²³Schermerhorn, Hunt, and Osborn, 140.

Chapter 3

²⁴Kirkpatrick, 22.

²⁵A. Anderson, H. Rossi, and J. Wright, Handbook of Survey Research (New York: Academic Press, 1983), 134.

²⁶Paul D. Leedy, Practical Research (New York: MacMillan Publishing Company, 1989), 88.

²⁷Floyd J. Flower, Jr., Survey Research Methods (Newburg Park: California: Sage Publications, Inc., 1988), 48.

²⁸Anderson, Rossi, and Wright, 137.

²⁹Fowler, 54.

Chapter 4

³⁰Don F. Bloom and W. C. Budd, Educational Measurement and Evaluation (New York: Harper and Row, Publishers, 1972), 118.

³¹Ibid., 119.

³²John W. Best, Research in Education, 4th ed., (New Jersey: Prentice-Hall, Inc., 1981), 24.

³³Ibid., 181.

³⁴Ibid., 182.

APPENDIX A

LETTER TO CNET

CHIEF OF NAVAL EDUCATION AND TRAINING
250 Dallas St.
Pensacola, Fl. 32505-5000

Dear Respondent:

The Chief of Naval Education and Training is seeking your help in gathering important information about Leadership training in the Navy. You were selected in a random sample of Navy personnel who have attended the two-week Chief Petty Officer Course course within the past six months. The information you and other Navy personnel provide will be used to assess the effectiveness of the Navy's Leadership Continuum Curricula and to identify areas where improvements are needed.

Enclosed is your copy of the "Leadership Continuum 1997 Survey." Completing the survey should take no more than five minutes. This is your opportunity to provide input into issues that affect you and other Navy personnel.

Sometimes concern is expressed about the risks of responding frankly to such surveys. I assure you that *your responses will be kept confidential* and only group statistics will be reported.

Please return your completed survey in the enclosed postage-paid envelope at your earliest convenience. Your time and cooperation are appreciated.

Sincerely,

P. Tracy
Vice Admiral, U.S. Navy

APPENDIX B
LEADERSHIP CONTINUUM SURVEY

Direction: For each topic listed below, rate *both* the *Adequacy* and *Usefulness* of the training you received using below which the rating scales identified.

ADEQUACY: Did the course prepare you to perform/understand this competency area?

- | | |
|---|---------------------|
| 0 - Do not remember any training on this. | 3 - Not too well. |
| 1 - Have not used yet. | 4 - Very well. |
| 2 - Did not prepare me. | 5 - Extremely well. |

USEFULNESS: How useful is this competency area in your present duties?

- | | |
|------------------------|-----------------------|
| a - Not useful at all. | d - Very useful. |
| b - Not too useful. | e - Extremely useful. |
| c - Fairly useful. | f - Not applicable. |

COMPETENCY AREAS COVERED IN CURRICULUM

	ADEQUACY	USEFULNESS
I. VALUES		
1. Principles	0 1 2 3 4 5	a b c d e f
2. Ethical Dilemmas	0 1 2 3 4 5	a b c d e f
3. Navy Core Values	0 1 2 3 4 5	a b c d e f
4. Sexual Harassment	0 1 2 3 4 5	a b c d e f
5. Command Unity/Diversity	0 1 2 3 4 5	a b c d e f
6. Equal Opportunity	0 1 2 3 4 5	a b c d e f
7. Fraternization	0 1 2 3 4 5	a b c d e f
II. MANAGEMENT OF RESOURCES		
1. Situational Leadership	0 1 2 3 4 5	a b c d e f
2. Total Quality Tools	0 1 2 3 4 5	a b c d e f
3. Process Improvement	0 1 2 3 4 5	a b c d e f
4. Conflict Management	0 1 2 3 4 5	a b c d e f
5. Risk Management	0 1 2 3 4 5	a b c d e f
6. Stress Management	0 1 2 3 4 5	a b c d e f
III. COMMUNICATIONS SKILLS		
1. Effective Listening	0 1 2 3 4 5	a b c d e f
2. Written Communications	0 1 2 3 4 5	a b c d e f
3. Situational Communication	0 1 2 3 4 5	a b c d e f

IV. SUBORDINATE DEVELOPMENT

1. Counseling	0	1	2	3	4	5	a	b	c	d	e	f
2. Performance Evaluation	0	1	2	3	4	5	a	b	c	d	e	f
3. Career Planning	0	1	2	3	4	5	a	b	c	d	e	f
4. Mentoring	0	1	2	3	4	5	a	b	c	d	e	f
5. Recognition/Award	0	1	2	3	4	5	a	b	c	d	e	f
6. Quality of Life	0	1	2	3	4	5	a	b	c	d	e	f

APPENDIX C

RATINGS OF ADEQUACY BY TOPIC COMPETENCE

Table 45. Values

Competency	Frequency						Combined 4 & 5
	0	1	2	3	4	5	Percent
1 Principles	3	1	0	1	4	3	58.0
2 Ethical Dilemmas	0	0	0	0	5	7	100.0
3 Navy Core Values	0	0	0	0	5	7	100.0
4. Sexual Harassment	0	0	0	6	5	1	50.0
5 Command Unity/Diversity	0	0	1	6	4	1	41.6
6 Equal Opportunity	2	0	2	2	6	0	50.0
7 Fraternization	2	1	0	6	1	2	25.0

Table 46. Management of Resources

Competency	Frequency						Combined 4 & 5
	0	1	2	3	4	5	Percent
1 Situational Leadership	0	0	0	0	3	9	100.0
2 Total Quality Tools	0	5	0	3	3	1	33.3
3 Process Improvement	0	5	0	3	3	1	33.3
4 Conflict Management	0	2	0	1	5	4	75.0
5 Risk Management	0	3	1	2	2	4	50.0
6 Stress Management	0	0	0	0	2	10	100.0

Table 47. Communication Skills

Competency	Frequency						Combined 4 & 5
	0	1	2	3	4	5	Percent
1 Effective Listening	0	0	0	3	4	5	75.0
2 Written Communications	0	0	0	0	5	7	100.0
3 Situational Communications	0	0	1	1	6	4	83.3

Table 48. Subordinate Development

Competency	Frequency						Combined 4 & 5
	0	1	2	3	4	5	Percent
1 Counseling	0	1	0	0	4	7	92.0
2 Performance Evaluation	0	4	0	0	2	6	67.0
3 Career Planning	1	3	0	3	4	1	42.0
4 Mentoring	3	2	1	3	3	0	25.0
5 Recognition/Award	0	3	0	2	3	4	58.0
6 Quality of Life	0	1	0	4	5	2	58.0

APPENDIX D
RATINGS OF USEFULNESS BY TOPIC COMPETENCY

Table 49. Values

Competency	Frequency						Combined c, d, & e
	a	b	c	d	e	f	Percent
1 Principles	1	2	1	3	2	3	50.0
2 Ethical Dilemmas	0	0	1	3	8	0	100.0
3 Navy Core Values	0	0	1	2	9	0	100.0
4 Sexual Harassment	0	1	7	4	0	0	92.0
5 Command Unity/Diversity	0	1	5	6	0	0	92.0
6 Equal Opportunity	0	1	5	3	1	2	75.0
7 Fraternization	0	1	4	3	2	2	75.0

Table 50. Management of Resources

Competency	Frequency						Combined c, d, & e Percent
	a	b	c	d	e	f	
1 Situational Leadership	0	0	0	3	9	0	100.0
2 Total Quality Tools	2	0	4	2	1	3	58.0
3 Process Improvement	2	0	3	2	2	3	58.0
4 Conflict Management	0	0	1	4	5	2	83.0
5 Risk Management	0	1	1	5	2	3	67.0
6 Stress Management	0	0	1	2	9	0	100.0

Table 51. Communication Skills

Competency	Frequency						Combined c, d, & e Percent
	a	b	c	d	e	f	
1 Effective Listening	0	0	4	3	5	0	100.0
2 Written Communications	0	0	2	5	5	0	100.0
3 Situational Communications	0	0	1	2	9	0	100.0

Table 52. Subordinate Development

Competency	Frequency						Combined c, d, & e Percent
	a	b	c	d	e	f	
1 Counseling	0	0	2	0	10	0	100.0
2 Performance Evaluation	0	0	1	1	9	1	92.0
3 Career Planning	1	2	2	3	2	2	58.0
4 Mentoring	1	3	2	2	0	4	33.0
5 Recognition/Award	0	0	2	4	3	3	75.0
6 Quality of Life	0	1	2	5	3	1	83.0

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